

SULLIVAN MACHINERY COMPANY

Manufacturers of Rock Drills and Air Compressors

ESTABLISHED 1850

84 East Adams Street
CHICAGO, ILL.

SALES OFFICES

BIRMINGHAM	CLEVELAND	DULUTH	JUNEAU	PITTSBURGH	SAN FRANCISCO
BOSTON	DALLAS	EL PASO	KNOXVILLE	ST. LOUIS	SPOKANE
BUTTE	DENVER	JOPLIN	NEW YORK	SALT LAKE CITY	TORONTO
LONDON, ENGLAND	PARIS, FRANCE	SANTIAGO, CHILE	SYDNEY, AUSTRALIA	VANCOUVER, B. C.	

WORKS: CLAREMONT, N. H., CHICAGO, ILL.

Products and Services.

ROCK DRILLS and HAMMER DRILLS of many types for use in mines, quarries and on engineering construction; DRILL BIT SHARPENING MACHINES; "AIR LIFT" WELL PUMPS; AIR COMPRESSORS.

Diamond Core Drills for mineral prospecting and test borings, Coal Mining Machines, Forge Hammers, Drill Steel Furnaces, Stone Channeling Machines and Quarrying Machinery.

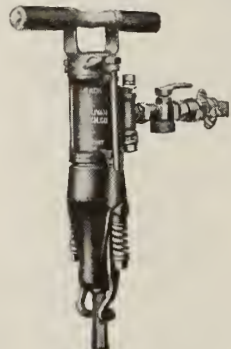
CONTRACTORS for ENGINEERS TEST BORINGS with Sullivan Diamond Drills, and for Mineral Land Prospecting.

Rock Drills and Hammer Drills.

Sullivan rock drills are available in numerous types for any demand of rock removal. Types include:

Rotator Hammer Drills—Bulletin 1670-F. "DR-6" Water Jet Drifters—Bulletin 1670-H. "Dry" and "Wet" Simple and Self Rotating Air Feed Stoppers—Bulletin 1670-M. "Plug" and "Foot-Hole" Granite Tools—Bulletin 1670-B. Hyspeed and Liteweight Reciprocating Rock Drills—Bulletin 1670-D. Submarine Rock Drills—Bulletin 1670-E. Water Jet Rock Drills—Bulletin 1670-D.

ROTATORS—6 types; average 38 lbs. The hollow piston and air tube rotators are particularly adapted for shaft or open cut drilling, having a capacity of 12- to 15-ft. holes. (They have drilled to 36 ft.) Water tube and "Pneufed" rotators are rapid mine drifters and adaptable for light tunneling. Two types of mounting available. A steam rotator can also be had. All "one-man" drills, powerful and rapid.



SULLIVAN ROTATOR
HAMMER DRILL



SULLIVAN TRIPOD
DRILL



SULLIVAN WATER HAMMER DRILL "DX-61"

Made of drop forgings, and tool steel throughout.

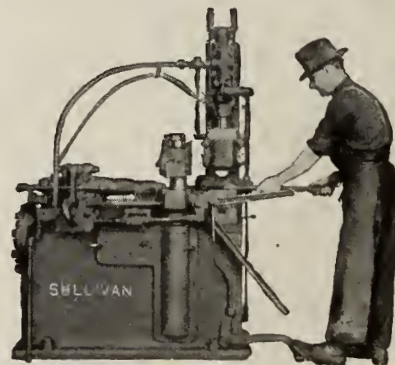
For heavier rock drilling, on tripods, quarry bars or gadders, select Hyspeed drills, especially designed and built for quarry and open cut service.

Hitting power, pulling strength, air and repair economy are "Hyspeed" features that mean low drilling cost. Sizes, 2¾, 3, 3¼, 3½ and 4¼ in.

For tunneling and underground drilling in general, requiring a mounting, select "DR-6" or "DX-61" all steel "Water Jet" hammer drills, using 1¼-in. round hollow steel. Holes to 14 ft.

Sullivan Drill Sharpener.

Embodies all the elements necessary for proper care of hammer drill steel. Does its work, both upsetting and swaging, by gradual hammering; does not require injurious temperatures for proper handling of steel. Sharpens both solid and hollow bits and forms shanks accurately and rapidly. Economical of compressed air, which is the motive power; safe and easy to use, and is a substantial, durable machine. Occupies a floor area of 5 by 2½ ft.; is 6 ft. high; weighs 4000 lbs. Write for bulletin 1672C.



SULLIVAN DRILL SHARPENER



SULLIVAN "AIR
LIFT" PUMP

Sullivan "Air Lift" Well Pump.

Secures more water from the same wells than by any other means; secures cooler water, which means a saving in horsepower in condensing; secures purer and softer water, due to aeration; greater simplicity and reliability (there are no moving parts in the well). Apparatus is always in working order; not affected by sand or mud. Efficiency kept up to original point at all times and after long use; a scattered group of wells can be pumped as readily as one well. Ask for bulletin 1671-D.

Test Boring Service.

The Sullivan Diamond Drill Contract Boring Department, organized in 1884, specializes in testing the proposed sites of bridges, dams, tunnels and docks. The

cores secured show the exact location and character of the bed rock. Work is taken in any part of the United States or Canada, on a price-per-foot or cost-plus-percentage basis. Booklet—16, 113.

Types of Sullivan Compressors.

STEAM DRIVEN—"WC," Tandem Compound Corliss Steam Cylinders—Two-stage air cylinders; capacities 1000 to 3150 ft. Bulletin 1675-U.

"WB-3," Simple Steam—Two-stage air cylinders, straight line; capacities 250 to 950 ft. Bulletin 1675-E.

"WA-6," Simple Steam—Simple air cylinders, straight line; capacities 100 to 400 ft. Bulletin 1675-P.

POWER DRIVEN—"WJ-3," "WN-3," Angle Compound—Belt or direct motor drive; capacities 400 to 1100 ft. Bulletin 1675-S.

"WJ-4," "WN-4," Twin Angle Compound—For direct synchronous motor drive or belt pulley; capacities 900 to 2600 ft. Bulletin 1675-S.

"WH-6," Belted—Two-stage, enclosed frame; capacity 300 ft. Bulletin 1675-R.

"WG-6," Belted—Single-stage, enclosed frame; capacities 50 to 350 ft. Bulletin 1675-R.

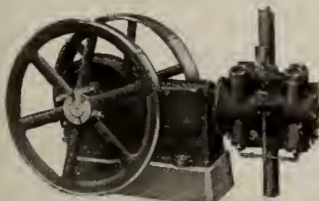
"WK-2," Direct Motor Driven—Portable mine car type, single-stage; capacities 100 to 250 ft. Bulletin 1675-L.

"WK-31," Direct Gas Engine Driven—Portable horse truck type, single-stage, for road work, etc.; capacity 150 ft. Bulletin 1675-T.

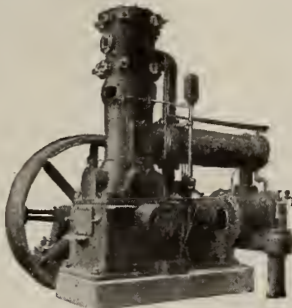
ANGLE COMPOUND COMPRESSORS, "WJ-3"—Small floor space and foundation cost; flexibility of driving arrangement; power economy, due to accurate balance between vertical and horizontal reciprocating masses, and to unloading apparatus on both high and low pressure members; end rolling "finger" plate valves; large intercooler area and automatic lubrication. Twin units available for larger capacity, provide flexible air supply with maximum power economy, and eliminate peak loads.

TANDEM COMPOUND CORLISS STEAM DRIVEN COMPRESSORS, "WC"—Unite high fuel economy characteristic of the best Corliss engine design with excellent air end efficiency, secured by two-stage air cylinders, ample intercooling area, and close speed and pressure regulation. Tandem design permits important economies in weight, house room and foundations. Five unit sizes: 1000, 1500, 2000, 2500 and 3150 ft.

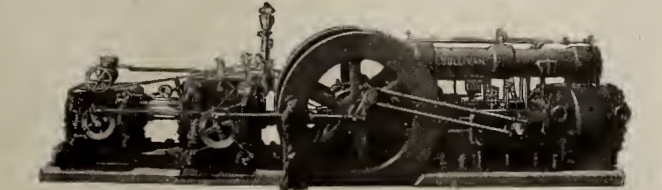
SULLIVAN BELT DRIVEN SINGLE-STAGE COMPRESSORS, "WG-6"—Provide continuous, reliable air power service. Design is simple,



SULLIVAN "WG-6" SINGLE-STAGE BELT DRIVEN COMPRESSOR



SULLIVAN "WJ-3" ANGLE COMPOUND COMPRESSOR



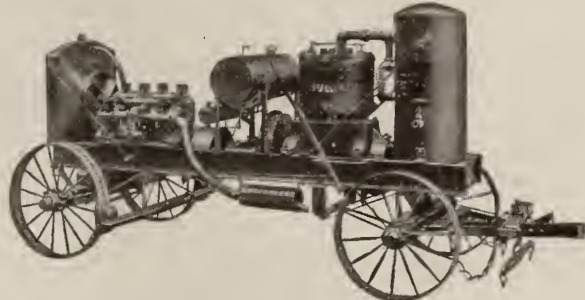
SULLIVAN "WC" TANDEM COMPOUND CORLISS COMPRESSOR



SULLIVAN DIAMOND DRILL TESTING A BRIDGE SITE ON THE ST. LAWRENCE RIVER

substantial; materials and workmanship of all working parts the best. Automatic, "wafer" type plate air valves; water jacketed cylinder and heads; enclosed frame and splash lubrication. Automatic inlet valve unloader provided to save power.

SULLIVAN "WK-31" PORTABLE, GASOLINE ENGINE DRIVEN AIR COMPRESSORS—Mounted on all-steel trucks, with canopy top for protection. For operating drills for street or highway rock removal. Capacity, 150 cu. ft.; 32 h.p.; weight, 4500 lbs. Two-cylinder vertical compressor operated by gear and pinion from four-cylinder, four-cycle, tractor type gasoline engine, complete with receiver, gasoline tank and radiator, on steel wagon truck. Bulletin 1675-T.



SULLIVAN "WK-31" PORTABLE AIR COMPRESSOR

"WJ-3" AIR COMPRESSORS, ANGLE COMPOUND, BELT DRIVEN

Cylinder sizes		Stroke, in.	Displacement, cu. ft. per min.	R.p.m.	I.h.p. at 100 lbs. pressure	Overall dimensions			Belt pulley		Piping
Diam. in.	L.p.					Length, ft.-in.	Width, ft.-in.	Height above bottom of bed plate, ft.-in.	Diam. in	Face, in.	
14	8 3/4	10	445	250	72	8-10	4-0	7-1 1/2	5-10	10	3
16	9 3/4	12	628	225	103	9-11 1/2	5-11 1/2	7-11	6-4	15	3 1/2
17	9 3/4	12	709	225	116	9-11 1/2	5-11 1/2	7-11	6-4	15	3 1/2
18	11	14	928	225	152	11-2 1/2	7-6 1/2	7-7 1/2	6-8	19	3 1/2
20	12	14	1146	225	188	11-4 1/2	7-10 1/2	9-9	6-8	23	4
22	13	14	1388	225	229	11-7	8-1	9-9	7-2	24	4 1/2

SULLIVAN "WC" AIR COMPRESSORS, TANDEM CORLISS STEAM AND TANDEM TWO-STAGE AIR

Cylinder sizes				Stroke, in.	Cu. ft. air per min.	R.p.m.	I.h.p. at 100 lbs. air pressure	Boiler h.p. required		Lbs. steam per l.h.p. per hr.		Over all dimen- sions		Fly wheels	
Diam., in.								Condensing	Non-con- densing	Condensing	Non-con- densing	Length, ft.-in.	Width, ft.-in.		
Steam		Air													
H.p.	L.p.	H.p.	L.p.												
14	24	12½	20	20	1000	138	182	120	149	18	5	23	24-6	6-0	7-0
16	28	14½	24	24	1500	120	268	164	211	17	5	22	528-6½	6-7	8-4
18	30	16½	26	30	2000	108	341	197	256	16	5	21	533-2	7-7	9-6
20	34	18	30	30	2500	100	430	233	307	15	5	20	533-2	7-7	10-0
22	38	20	34	30	3150	100	552	279	375	14	5	19	537-0	8-6	10-0

SULLIVAN POWER DRIVEN AIR COMPRESSORS, CLASS "WG-6," BELT DRIVEN

Size cylinder		Stroke, in.	Displacement, cu. ft. per min.	R.p.m.	Maximum working pressure	H.p. at maximum pressure	Over all dimensions			Flywheels	
Diam., in.	Stroke, in.						Length, ft.-in.	Width, ft.-in.	Height above bottom of bed plate, ft.-in.	Diam., in.	Width pulley face, in.
6	6	58	300	120	11.5	4-10 1/2	1-10 1/2	2-0	30	4 1/2	
7	6	80	300	100	14.5	5-0	1-10 1/2	2-0	30	4 1/2	
8	6	104	300	50	13.5	5-5 1/2	1-10 1/2	2-0	30	4 1/2	
8	8	121	260	120	24	6-3	2-4 1/2	2-8	40	7	
9	8	152	260	100	7	6-4	2-4 1/2	2-8	40	7	
10	8	188	260	50	24.5	6-4	2-4 1/2	2-8	40	7	
10	10	213	235	120	42	7-5	3-0	3-4	50	10 1/2	
11	10	258	235	100	47	7-6	3-0	3-4	50	10 1/2	
12	10	307	235	100	55	7-7	3-0	3-4	50	10 1/2	
14	10	418	235	50	52	7-7	3-0	3-4	50	10 1/2	
12	12	345	220	120	71	8-10	3-11	3-10 1/2	60	14 1/2	
14	12	470	220	90	85	8-10	3-11	3-10 1/2	60	14 1/2	
16	12	614	220	50	76	8-11	3-11	3-10 1/2	60	14 1/2	